

# Senuri Wijenayake

Human Computer Interactions | Social Computing

+6141 5557 344

senuri.wijenayake@gmail.com

senuriwijenayake.com

senuriwijenayake

## Profile

I am an Assistant Lecturer in Human-Computer Interaction at Design Lab, University of Sydney. My research primarily focuses on designing online group platforms accounting for socio-psychological influences to mitigate bad behaviours. More broadly, I am interested in understanding "why people do what they do" when using computing systems, in relation to HCI theory. I have extensive research experience designing and conducting mixed method user studies, and data analysis using both quantitative & qualitative methods. Additionally, I enjoy teaching and mentoring students - both within and outside Australia - imparting my knowledge and experience on to future generations.

## Education

### PhD in Computer Science

Jul 2018 - Dec 2021

School of Computing and Information Systems, University of Melbourne, Australia.

Supervised By: Dr. Jorge Goncalves and Prof. Vassilis Kostakos

**Thesis: Designing for the Dynamics of Online Social Conformity**

Social conformity has both positive and negative effects on how people behave and make decisions in online learning platforms. My research aims to quantify contextual and personal determinants of conformity and inform how online group settings can be designed considering conformity influences to ensure healthy social interactions.

**Highlights:**

- Graduate Research Student of the Year award (Faculty of Engineering and IT) in 2021.

### BSc. (Hons) in Information Technology

May 2013 - Oct 2017

Faculty of Information Technology, University of Moratuwa, Sri Lanka.

**Highlights:**

- Gold Medal for the Best Academic Performance at the BSc. (Hons) IT Examinations in 2017.
- Gold Medal for the Most Outstanding Student of University of Moratuwa across all faculties in 2017 for outstanding academic performance, research contribution, volunteer work and extra-curricular activities.

## Work Experience

### Assistant Lecturer | Human Computer Interactions & Design

Jan 2022 - Present

Design Lab, School of Architecture, Design and Planning, University of Sydney, Australia.

- Involved in a project that requires conceptualising, designing and developing an integrated qualification test framework that can improve the quality of crowdsourced data on Amazon Mechanical Turk.

### Research Assistant

Oct 2021 - Dec 2021

School of Computing and Information Systems, University of Melbourne, Australia.

- Involved in a project that requires conceptualising, designing and developing an integrated qualification test framework that can improve the quality of crowdsourced data on Amazon Mechanical Turk.

### Academic Tutor

Jan 2019 - Dec 2021

School of Computing and Information Systems, University of Melbourne, Australia.

- Conducted workshops for graduate and undergraduate courses including [Social Computing](#) (2020, 2021), [Evaluating the User Experience](#) (2019, 2020, 2021) and [Fundamentals of Interaction Design](#) (2019).
- Developed workshop content and rubrics for assessment evaluation, and supervised student projects.

## Academic Tutor (continued)

- Highlights:
  - Received the Excellence in Tutoring Award in recognition of the outstanding contribution to tutoring in School of Computing and Information Systems in 2019.
  - Certifications completed:
    - Melbourne Teaching Certificate for Graduate Researchers awarded by the University of Melbourne.

## Software Engineer & Team Lead

Aug 2017 - Jun 2018

Tracified, 99X Technology, Sri Lanka.

- Designed and developed a traceability solution for e-commerce platforms selling premium products (Tracified).
- Winner of Gold Award in Retail and Supply Chain Management at the National Best Quality Software Awards (NBQSA) Sri Lanka in 2017.
- Responsibilities:
  - Leading a 20+ team of Developers, UX Engineers and Quality Assurance Engineers and overseeing the scrum activities as the team's Scrum Master.
  - Full stack software development using AngularJs, CSS, HTML, TypeScript, Express, MongoDB.
  - Guiding the product engineering process from product designing to deployment.
  - Conducting on-site training for clients and compiling training manuals.
  - Communicating with clients for requirement gathering, customisations and troubleshooting.

## Software Engineering Intern

Mar 2016 - Sep 2016

PicaSix, 99X Technology, Sri Lanka.

- Frontend developer for PicaSix – a web-based supply chain management system – which aligns processes between importers, suppliers, production, wholesalers and end-consumers.
- Responsibilities:
  - Full stack software development using AngularJs, JavaScript, HTML, CSS, Ruby on Rails.
  - Implementing automated frontend testing using Protractor and compiled technical documentation for the setup.
  - Experience in Scrum activities and communicating with Product Owner and client for requirement gathering, customisations and technical walk-throughs.

## Undergraduate Developer

Aug 2014 - May 2015

Embla Software Innovations, Sri Lanka.

- Developed an interactive website to digitise handwritten information of Norwegian church books through crowdsourcing and use that information to enable users to discover and graphically illustrate their family trees.
- Responsibilities:
  - Full stack software development using HTML, CSS, JavaScript, C#, Entity Framework, SQL Server.
  - Communicating with the Product Owner and the Business Analyst for requirement gathering, customisations and technical walk-throughs.

# Research Publications

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## 2022

**What's the Appeal? Perceptions of Review Processes for Algorithmic Decisions (to appear)**

H. Lyons, [S. Wijenayake](#), T. Miller, E. Velloso

Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2022)

**Quantifying Determinants of Social Conformity in an Online Debating Website** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

International Journal of Human-Computer Studies (Impact Factor: 3.632)

## 2021

**Quantifying the Effects of Age-related Stereotypes on Online Social Conformity** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), J. Hu, V. Kostakos, J. Goncalves

Proceedings of the Eighteenth International Conference on Human-Computer Interaction (INTERACT'21)

## 2020

**Impact of Contextual and Personal Determinants of Online Social Conformity** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Computers in Human Behaviour (Impact Factor: 5.0)

**Quantifying the Effect of Social Presence on Online Social Conformity** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Proceedings of the ACM on Human-Computer Interaction (CSCW'20)

**Effect of Conformity on Perceived Trustworthiness of News in Social Media** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), D. Hettiachchi, S. Hosio, V. Kostakos, J. Goncalves

IEEE Internet Computing (Impact Factor: 4.2)

**How Context Influences Cross-Device Task Acceptance in Crowd Work** [[pdf](#)] [[doi](#)]

D. Hettiachchi, [S. Wijenayake](#), S. Hosio, V. Kostakos, J. Goncalves

Proceedings of the Eighth AAAI Conference on Human Computation and Crowdsourcing (HCOMP'20)

**Bots for Research: Minimising the Experimenter Effect** [[pdf](#)]

[S. Wijenayake](#), N. van Berkel, J. Goncalves

International Workshop on Detection and Design for Cognitive Biases in People & Computing Systems (CHI'20)

## 2019

**Measuring the Effects of Gender on Online Social Conformity** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Proceedings of the ACM on Human-Computer Interaction (CSCW'19)

**Crowdsourcing Perceptions of Fair Predictors for Machine Learning: A Recidivism Case Study** [[pdf](#)] [[doi](#)]

N. van Berkel, J. Goncalves, D. Hettiachchi, [S. Wijenayake](#), R.M. Kelly, V. Kostakos

Proceedings of the ACM on Human-Computer Interaction (CSCW'19)

## 2018

**A Decision Tree Approach to Predicting Recidivism in Domestic Violence** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), T. Graham, P. Christen

Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'18)

**Predicting Tie Strength between Facebook Friends to Improve Accuracy in Travel Recommendation Systems** [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), S. Ganiachchi, J. Wijekoon, S. Ahangama

Proceedings of the Pacific Asia Conference on Information Systems 2018 (PACIS'18)

## 2018 (cont.)

Improving Accuracy in Mobile Human Contributions: An Overview [\[pdf\]](#) [\[doi\]](#)

N. van Berkel, M. Budde, [S. Wijenayake](#), J. Goncalves

Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'18)

## 2017

A Context Aware & Personalized Multiple Location Trip Planner Using Facebook Check-ins of a User [\[pdf\]](#) [\[doi\]](#)

[S. Wijenayake](#), S. Ganiachchi, J. Wijekoon, S. Ahangama

Proceedings of the 17th International Conference on Advances in ICT for Emerging Regions (ICTer'17)

Creation of Semantic Location Profiles using Bayes, Rule-Based, Trees and Meta Classification Approaches [\[pdf\]](#) [\[doi\]](#)

S. Ganiachchi, [S. Wijenayake](#), J. Wijekoon, S. Ahangama

Proceedings of the 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD'17)

## Honors & Awards

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**2021** Best Paper Award, IFIP TC13 International Conference on Human-Computer Interaction (INTERACT'21)

**2021** Graduate Research Student of the Year, Faculty of Engineering and IT, University of Melbourne

**2019** Excellence in Tutoring Award, School of Computing and Information Systems, University of Melbourne

**2018** Best Paper Award, Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'18)

**2017** Gold Medal for the Best Academic Performance at BSc. (Hons) IT Examinations, University of Moratuwa

**2017** Gold Medal for the Most Outstanding Student across all faculties, University of Moratuwa

**2017** Gold Award in Retail and Supply Chain Management, National Best Quality Software Awards (NBQSA)

**2017** Merit Award in Culture and Tourism, e-Swabhimani'17 organised by Information and Communication Technology Agency (ICTA), Sri Lanka

## Scholarships & Grants

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**2022** Instagram Research Award on Safety and Community Health (50,000 USD)

**2021** Diane Lemaire Scholarship, Faculty of Engineering and IT, University of Melbourne

**2019** Conference Travel Scholarship, School of Computing and Information Systems, University of Melbourne

**2019** Conference Travel Scholarship, Melbourne School of Engineering, University of Melbourne

**2018** Melbourne Research Scholarship, University of Melbourne

**2018** Rowden White Scholarship, University of Melbourne

## Skills

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Research	User Studies, Usability Testing, Interviews, Crowdsourcing, Prototyping, Mixed Methods
Programming	R, Python, JavaScript, AngularJs, NodeJs, MongoDB, SQL, TypeScript, ExpressJs, HTML/CSS
Digital Media	Canva, Adobe XD, Hootsuite, Photoshop, Social Media Design
Interpersonal	Public Speaking, Academic Tutoring & Mentorship
Processes	Agile Scrum, Kanban, Technical Documentation, Technical Training, Project Management

# Academic Services

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- **Research Supervision:**
  - Co-supervisor for [INFO90008 HCI Project](#) for Jolan Hu (MIT) in 2020.
  - Co-supervisor for [INFO90008 HCI Project](#) for Shangqian Li (MIS) in 2021.
  - Supervisor for [DESN9203 Design Research](#) Project for Jiamu Lin (on going).
- **Organising Committee Member:**
  - Web Co-chair for the Australian Conference on Human-Computer Interaction 2022.
  - Social Media Co-chair for the Australian Conference on Human-Computer Interaction 2020 ([@ozchiconf](#)).
- **Student Volunteer:**
  - ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'20)
  - CIS Doctoral Colloquium 2018 organised by the University of Melbourne
- **Conference & Journal Reviewing:**
  - ACM Conference on Human Factors in Computing Systems (CHI)
  - ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
  - The Web Conference (WWW)
  - International Conference on Human-Computer Interaction (INTERACT)
  - Australian Conference on Human-Computer Interaction (OzCHI)
  - Computers in Human Behaviour (CHB)
  - Social Sciences & Humanities Open (SSHO)

## Voluntary Work

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### Postgraduate Student Mentor

Jul 2020 - Dec 2021

School of Computing and Information Systems, University of Melbourne, Australia.

- Mentor for PhD students under the "Help-a-Mate" initiative of School of Computing and Information Systems, University of Melbourne.

### Motivational Speaker & Mentor

May 2015 - Present

Career Guidance Unit, Faculty of Information Technology, University of Moratuwa, Sri Lanka.

- Conducting online seminars to undergraduate students at University of Moratuwa on international opportunities for higher education (2018 - present).
- Conducting seminars to rural schools in Sri Lanka on higher education opportunities (2015 - 2017).
- Mentoring high school students at Visakha Vidyalaya, Sri Lanka on their GCE Advanced Level IT Projects in 2017.

### Secretary

Dec 2020 - Present

### Media & Communications Officer

May 2019 - Dec 2020

Sri Lankan Graduates' Society (SLGS), University of Melbourne, Australia.

- Handled the social media presence of SLGS - a graduate student association at University of Melbourne.
- Actively contributed in designing the [SLGS official website](#) and the e-newsletter for year 2020.

### Main Student Representative

Jan 2016 - Jan 2017

Faculty of Information Technology, University of Moratuwa, Sri Lanka.

### Editor in Chief - FIT Chronicle

Jan 2015 - Aug 2017

Faculty of Information Technology, University of Moratuwa, Sri Lanka.

- FIT Chronicle - the academic magazine of the Faculty of IT, University of Moratuwa - is the outcome of combined effort from the faculty and students.
- Under my leadership, the FIT Chronicle brought the spotlight onto faculty events, academic programs, student achievements, student extracurricular activities with a new addition of a "students' corner" to exhibit composing talents and artistic insight of FIT students.

See FIT Chronicle: [2015 Edition](#) [2016 Edition](#)